

ACSA NEWS

Featuring Kelly Vincent's keynote to ACSA's biennial conference. Kelly is the Dignity for Disability Party's representative in the South Australian Parliament.



DECEMBER 2015

The newsletter of the Australian Curriculum Studies Association

acsa

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My name is Judy Anderson and this is my first President's report for ACSA—it is an honour and a privilege to be the President for 2015–17 and to have the opportunity to work with a dedicated and committed Executive team as well as an experienced and hard working Secretariat.

We held our first meeting of the Executive, who were appointed at the 2015 conference, in mid-October to develop strategies and approaches for building the Association through greater connections with our membership, by offering a broader range of professional learning opportunities, and to advocate for curriculum innovation in Australia and beyond.

The Executive team includes:

- ▶ Vice President—Dr Deborah Henderson, Associate Professor, School of Curriculum, Queensland University of Technology
- ▶ Honorary Secretary/Treasurer—Ms Christine Reid, Executive Director, National Curriculum Services
- ▶ Immediate Past President—Mr Garry McLean, Chief Executive Officer, Mary MacKillop Heritage Centre
- ▶ *Curriculum Perspectives* Editor—Dr Kerry Kennedy, Chair Professor of Curriculum Studies, Hong Kong University
- ▶ Aboriginal and Torres Strait Islander Member—Mr Kevin Lowe, Associate Senior Lecturer, The University of Sydney

FROM OUR NEW PRESIDENT

Background image on this and following page Nevit Dilman.

General Executive Members:

- ▶ Dr Catherine Hart, Senior Lecturer, History and Humanities Education, Australian Catholic University
- ▶ Dr Michael Kindler, Principal, Stromlo High School
- ▶ Ms Leslie McFarlane, retired
- ▶ Dr Kathryn Moyle, Research Director and Adjunct Professor, Australian Council for Educational Research
- ▶ Dr Deborah Price, Lecturer of Inclusive Education and Wellbeing, University of South Australia

By way of background, I am a former secondary mathematics teacher and head teacher, holding appointments in public and Catholic schools in New South Wales and England. I am currently an Associate Professor in Mathematics Education, Director of the STEM Teacher Enrichment Academy at the University of Sydney, and coordinator of the secondary mathematics pre-service teacher education program in the Faculty of Education and Social Work. As an advocate of innovative curriculum, I led the writing team for the K to 10 mathematics syllabuses in New South Wales from 2001 to 2002 and provided substantial feedback to ACARA on the draft versions of the Australian curriculum.

I am a former president of the Mathematical Association of New South Wales (2005–06) and the Australian Association of Mathematics Teachers (2008–09); I convened the ACSA conference in Sydney in 2011, and have been an ACSA Executive

member since 2010. Because of my passion for innovative curriculum and the recognition that teachers are creative and innovative curriculum designers, I regularly work in schools with teachers as an academic partner and have recently conducted research into middle years students' motivation and engagement.

ACSA has recently provided leadership in national curriculum with successful initiatives around the cross-curriculum priorities and general capabilities as well as multiculturalism and school assessment. Continuing to build on these initiatives and support teachers in the implementation of the Australian curriculum is essential as we work towards achieving the goals of education for all young Australians as articulated in the Melbourne Declaration. Also, given the current focus on STEM education at the national level and our ongoing positive and collaborative relationships with other national professional associations, ACSA is well placed to play a role in new initiatives such as leadership in mathematics and science in primary schools as well as STEM education more broadly. As President of ACSA, I aim to consult members about their priorities for ACSA's work and develop new opportunities for sharing expertise in curriculum development in schools. ■

Judy Anderson
ACSA President



FROM THE EXECUTIVE DIRECTOR

Welcome to the second *ACSA News* for 2015, with some reading for the upcoming holiday break.

You will have noticed in the previous article by our new President, Judy Anderson, that the ACSA Executive met recently and one of the items discussed was connecting better with our members. One outcome is the decision to move the *ACSA News* being published in December, to a February edition in 2016. As we all know December is a busy time for our members and the Executive felt that February, once people have settled back at work after the school break, was a better time to be connecting with our members and flagging ACSA activities planned for the coming year. This also means that the *ACSA News* currently released in June will now come out in August each year.

Members will be advised by e-mail when *ACSA News* is available on the website, so please ensure that you notify us of any change to your e-mail address.

ACSA recently held a highly successful conference in Adelaide titled 'Curriculum leadership for a diverse Australia'. I'd like to thank the conference committee Deborah Price (Convenor), Marianne Farrugia, Lynda Macleod, Caitlin Cottnam and Deborah Green. A year of meetings and communication have culminated in a program that was truly diverse, inspiring and modelled innovative approaches for curriculum leadership for a diverse Australia. Many of the conference presentations are available at the following link, [ACSA 2015 Conference presentations](#).

This year ACSA explored a new avenue for providing professional learning activities by offering three webinars to members and others. I thank the presenters Michael Kindler, Margaret Vickers and Florence McCarthy for their willingness to participate and share their knowledge and their work. The webinars are cross-referenced against the Australian Professional Standards for Teachers for ease of professional development planning and a Certificate of Participation is provided to those who take part. Attendees also receive a recording of the webinar to use for their own purposes. These recordings would be a great way to stimulate discussion between colleagues or as a starting point for staff meeting conversations.

The webinars were well received and popular with attendees. We have been inspired by how much people have enjoyed them and have put together a comprehensive professional learning webinar program for you in 2016. There are over 20 presenters and webinars to choose from with the first being delivered in February by the ever popular Dan Haesler! See further information following this article.

The ACSA Secretariat will be closed during the summer break. It will close on Thursday 24 December 2015 and reopen on Monday 18 January 2016.

Finally, I wish all ACSA members, their family and friends a safe and happy festive period. ■

Katherine Schoo
ACSA Executive Director



ACSA WEBINARS 2016

ACSA is delighted to present our 2016 webinar professional learning series.

We have a range of fantastic speakers over the coming year who will present on all areas of curriculum in Australia today. If you were unable to attend our 2015 conference, you will appreciate this chance to hear some of those wonderful presentations throughout this series.

We know how difficult it can be for busy educators to find time for seminars and other professional development opportunities. ACSA's webinars are a great way to benefit from the knowledge of experienced curriculum planners and academics right from your desktop, wherever you may be!

Each webinar is cross-referenced against the Australian Professional Standards for Teachers for ease of professional development planning and a 'Certificate of Participation' is provided when you have attended the full session.

Each webinar lasts about an hour and we are offering more than 20 during 2016. They have been timed to run concurrently with school terms.

Never attended a webinar before?

No problem, we can support you in getting to know the world of online learning very quickly. You do not have to miss out on quality speakers sharing their experience and insights, you can participate, wherever you are.

Attendance at each webinar is just \$60 for members and \$80 for non-members (GST inclusive).

Online registrations are now being taken for the first 2016 webinar. The exciting Dan Haesler will open our series at 7.00pm AEST on Thursday 25 February. Check for details online and secure your place for this webinar.

Registration for the full program will open in January and all members and subscribers will be notified by e-mail. Don't miss out on this wonderful opportunity to learn from colleagues and stay in touch with our dedicated community of educators.

Keep watch at www.acsa.edu.au for our regular e-mail updates and for information on this stimulating series.



'Stretch' photo Clemens v. Vogelsang

S—T—R—E—T—C—H

DAN HAESLER is our first presenter for 2016

Dan is an educator, writer and consultant who works with schools across the Asia-Pacific around issues of engagement and wellbeing. He is passionate about equity in education and engaging our hardest-to-reach kids.

Term 1 of ACSA's webinar series kicks off at 7.00pm on Thursday 25 February 2016

Dan's webinar is titled *Teaching kids to stretch*

Too many of our students believe they can't learn, while some don't feel the need to learn. How can teachers challenge these mindsets?

If the first question you hear in your classroom when you hand back work is, "What did you get?" then you should take part in this webinar.

Standards referenced

- 3.1.2 Set explicit, challenging and achievable learning goals for all students.
- 3.3.2 Select and use relevant teaching strategies to develop knowledge, skills, problem solving and critical thinking.
- 3.5.2 Use effective verbal and non-verbal communication strategies to support student understanding, participation, engagement and achievement.
- 4.2.2 Establish and maintain orderly and workable routines to create an environment where student time is spent on learning tasks.

TERM 1 continues

7.00pm Thursday 3 March 2016

How 'Australian' is the Australian Curriculum-critical pedagogy: Colonial narratives or shared histories. What is to be taught?

Kevin Lowe, Associate Senior Lecturer, University of Sydney

7.00pm Wednesday 9 March 2016

Leading 'globally connected—Asia engaged' schools.

Lisa Hayman, Asia Education Foundation

7.00pm Tuesday 15 March 2016

Network analysis for educational leaders.

Sue Nichols and Bec Neill, University of South Australia

7.00pm Wednesday 23 March 2016

Towards place-based education: Embedding cross-curriculum priorities.

Jo Caffery, Assistant Professor, Faculty of Education, Science, Technology and Mathematics, University of Canberra

Presenters and dates for ACSA's webinars will be available from January 2016 at www.acsa.edu.au

2015 CONFERENCE *wrap up*



The 2015 ACSA Biennial Conference 'Curriculum leadership for a diverse Australia' was held in Adelaide from 30 September to 2 October 2015 and presented a dynamic array of keynotes and panels. An appealing view of the River Torrens precinct at the Adelaide Convention Centre provided a central location for delegates to come together and network across the three days.

Excellent keynotes by a range of speakers from diverse contexts were significant highlights of the conference. These included Professor Lester-Irabinna Rigney's Garth Boomer address and keynotes by Tim Soutphommasane, Kelly Vincent, Hassan Mekawy and Rob Randall.

Conference evaluations revealed that these sessions were constantly referred to as dynamic, inspirational, powerful, robust, insightful, engaging, high profile, eminent experts and stimulating.

Comments included:

'Each of these were outstanding with each bringing quite a different emphasis to the conference and covering a whole range of diversity issues.'

'For me they got better and better and were most thought provoking.'

'They were all I would expect of a conference of this calibre.'



Image from the Sisters of Invention's video 'This isn't Disneyland'.

Delegates were delighted by a performance by the Sisters of Invention who had them dancing in the aisles on the first morning of the conference. The Sisters of Invention are a girl group from Adelaide, with learning difficulties ranging from foetal alcohol spectrum disorder, cerebral palsy, blindness, a mild intellectual disability and Williams syndrome. Their amazing performance was rewarded by a standing ovation from delegates who enjoyed hearing songs such as 'This isn't Disneyland'. [Click here to listen.](#)

The President's reception, took place overlooking the stunning River Torrens, and followed an intriguing panel session beautifully chaired by Amanda Blair which included the Hon. Kate Ellis MP, Shadow Minister for Education; Professor Barry McGaw, Immediate Past Chair of ACARA; Emeritus Professor Alan Reid, University of South Australia; Professor Lester-Irabinna Rigney, University of South Australia; and Senator Penny Wright, former senator for South Australia. The panel discussed what constitutes a diverse world-class Australian curriculum.

One particularly memorable event was the Acknowledgement of Country, where not only did we hear the didgeridoo but learnt about how it is made and played. The tour and dinner at the Adelaide Oval was a delicious high point.

Many of the conference presentations are available [here](#). ■

Top from left: Amanda, Kate, Barry. Bottom from left: Alan, Lester-Irabinna, Penny.



Colin Marsh/Pearson Award 2015

ACSA was delighted to present the 2015 Colin Marsh Award to Philip Roberts, Assistant Professor in Teacher Education (Curriculum Studies) at the University of Canberra, ACT. The award was presented at this year's conference.



Philip's family joined him for the presentation of his award.

In learning that he was to be presented with this award Philip told us an anecdote about how he wrote his winning paper. It is a lovely story that goes to the essence of everything Colin was ...

A few words from Philip

I'd like to thank ACSA, Pearson and the review committee for this most unexpected recognition. In particular I'd like to thank Professor (Emeritus) Bill Green for his mentorship in helping develop, and refine, the arguments in this paper. Similarly I'd like to recognise the two anonymous reviewers whose feedback also helped refine and develop the paper. It was a timely lesson about the strength and value of academic peer review. I'd also like to thank Professor Jo-Anne Reid for her mentorship and my wife and children for their support and forbearance.

I'd also like to share an anecdote. I initially presented what was to become this paper at the 2011 ACSA conference. In a keynote later that day Colin Marsh happened to sit next to me and after a few introductions we talked about what was to become this paper. Indeed he encouraged me to put the ideas together for a paper and was very encouraging and enthusiastic towards the novice I was (am).

ACSA THANKS PEARSON FOR THEIR SPONSORSHIP OF THIS AWARD.

I subsequently found it challenging to get the ideas together on the page. Recalling my conversation with Colin and his encouragement, I decided to write the draft as though it was a letter to Colin following up on that conversation. I then tidied it up and made it into a more conventional academic form, but that backbone remains. This award is such an uncanny turn of events considering the origins of the paper. Most of all it shows how a little encouragement and support goes such a long way.

What the judges had to say

Philip Roberts paper on 'Curriculum for the country: The absence of the rural in a national curriculum' published in *Curriculum Perspectives*, 34(1) raises key issues about the efficacy of the Australian Curriculum to meet the needs of all Australian school students, particularly those in rural settings. He argues that through the provision of a national curriculum and national testing, there is an implicit assumption that "the same knowledge is necessary and desirable for all students and fails to recognise that place renders some kinds of knowledge more valuable than others" (p. 51). As is evident in this quotation, Philip considers the principles of social justice, equity and respect for all and clearly demonstrates an understanding of

curriculum issues. His deep critical analysis and well-crafted argument challenges us all to consider the importance of place when constructing and implementing curriculum and thus has the potential for impact on curriculum designers and users. We are delighted to nominate this paper for this award.

The judging panel for the 2015 Award was: Associate Professor Judy Anderson, University of Sydney and ACSA Executive Member (currently ACSA President); Professor Val Klenowski, Queensland University of Technology and Dr John Montgomery, Head of Senior School, William Clarke College, New South Wales.

The Colin Marsh/Pearson Australia Award is presented to the best paper meeting the following criteria from the last four issues of *Curriculum Perspectives* published immediately before the biennial conference. The inaugural winner of this award in 2013 was the paper by Kevin Lowe and Tyson Yunkaporta, 'The inclusion of Aboriginal and Torres Strait Islander content in the Australian National curriculum: A cultural, cognitive and socio-political evaluation', published in volume 33, number 1, 2013. The winners are invited to the subsequent biennial conference and they receive a \$2000 cash prize and a trophy. ■

Award criteria

Presented for a quality contribution to the curriculum debate:

- ▶ potential for impact on the curriculum community (constructive, persuasive, timely)
- ▶ understanding of curriculum issues involved
- ▶ readability (clarity, structure, precision)
- ▶ depth of critical perspective/analysis
- ▶ consideration of the principles of social justice, equity and respect for all where appropriate.



Inset: Mobility of global-cosmopolitan knowledge travelling over a land of ancient wisdom. Photo PP Roberts. Background Gabriele Delhey.



Kelly's keynote

Kelly Vincent delighted us with her keynote presentation at the ACSA conference. She is the Dignity for Disability Party's representative in the South Australian Parliament, the first South Australian politician to permanently use a wheelchair for mobility, the youngest woman ever elected to an Australian parliament and the first Australian to be elected on the platform of disability rights. Here is her keynote ...

Hello, and thanks for inviting me along today. I'm Kelly Vincent, Dignity for Disability's member of the South Australian Legislative Council. I acknowledge that we meet today on Kaurna land. I would like to start by sharing a little of my own journey of advocacy and something about my party with some highlights of my work in parliament.

I will then lead on with a few thoughts about the barriers to inclusion and talk about ways to ensure our education system becomes more inclusive of students with disability into the future.

I hope this gets you thinking about what you can do to improve the lives of people with disabilities, and how by working together we can all create the inclusive future we want.

Dignity for Disability is a small, South Australian based political party and I am the sole elected representative so far. We hold regular fundraisers to support our election campaigns, and I will be up for re-election in 2018. Since I was elected to Parliament in 2010, I have been inundated by constituents seeking advocacy on every issue you can imagine—mostly relating to disability in some way.

I should point out though, that my work covers the full gamut of portfolio areas, and that as an upper house member of parliament I represent the whole of South Australia.

So, as you can imagine, it is a huge workload, managing my parliamentary commitments, constituent matters, invitations to events and also trying to keep an eye on the horizon for the 'big ticket' policy development we need to create ongoing positive change.

Although a life in politics wasn't the career I had planned, landing in Parliament House at the age of 21 has been an amazing opportunity—for me—and for furthering the broader awareness of disability. I feel honoured and privileged to continue my work towards improving the lives of South Australians with disabilities.

As mentioned, because I am a member of the upper house, the legislative council, I represent all South Australians. I regularly get calls from people requiring advocacy on issues, advice around legislation or policy, or other broader systemic matters surrounding disability. These could include viewing matters through a disability lens across health, transport, housing, the justice system, employment, education, disability services, and well, pretty much anything else you can think of.

Advocacy—and my wheelchair—are inescapable parts of my identity. It just so happens that my wheelchair is an essential part of the story of how I became Australia's youngest female member of parliament.

Unbeknown to me at the time, this political journey began when I started a campaign advocating for a new wheelchair.

I was 20 years old and at that time I was still using the same wheelchair I'd had since I was 10! And I don't know about you, but I certainly had done a fair bit of growing between 10 and 20 years of age—my wheelchair was way too small and it was causing me problems because of this.

Although Disability SA were fully aware of my need for a new chair, after waiting many months, I just got fed up. It felt as though I was constantly having to check in and monitor with Disability Services when I might finally get my adult wheelchair.

So, in typical 'Gen Y' fashion, I took action and set up a campaign on Facebook. Then, suddenly people from all over Australia were interested in my wheelchair! This interest included David Bevan and Matthew Abraham from our local ABC Adelaide radio station, and I became a bit of a regular on their program—telling their listeners the latest update in my wait for my wheelchair.

In every sense for me, the personal **is** political. And I invite you to think about your own political actions. Because it is only our actions that will take us beyond our words, beliefs and thoughts to lead us to become a more respectful, fair, just and equal society. And I think that's what we want South Australia to be, more respectful, fair, just and equal.

Anyway, it was through this wheelchair campaign—where of course I was not only advocating for my own rights but also for the rights of my peers—that I was approached by Dignity for Disability to stand as a candidate in the 2010 election. In unexpected circumstances I was elected becoming something of an 'accidental politician'.

Advocacy—and my wheelchair—are inescapable parts of my identity.



I have seen some great changes for the better in the disability sector in the five years since I was elected. Among my achievements as a member of parliament, there are a number of key issues I would like to highlight.



I have been proud to play a pivotal role in creating South Australia's Disability Justice Plan as a way of giving a voice to people who were previously denied access to fully participate in our legal system. This includes all people with disabilities, whether they come into contact with the justice system as a victim or as the perpetrator of a crime.



Recently, Parliament passed the Statutes Amendment, Vulnerable Witnesses bill. In so doing, we have ensured that people with disabilities will have their right to participate in the justice system upheld. It also ensures people who need communication assistance or who use technology to communicate will be equal before the law.



This is a monumentally important change for many reasons—not least of which is the fact that people with disabilities are statistically so much more likely to experience abuse. In fact, the organisation Women with Disabilities Australia estimates that 90 per cent of women and girls with intellectual disability have experienced sexual abuse at some point in their lifetime.

Ninety per cent.

And sixty-eight per cent of those women with intellectual disabilities will experience this abuse **before they reach the age of 18**. Dignity for Disability recognises that the greater the voice of these victims in court, the less likelihood there is that people with disabilities will be specifically targeted as victims of such heinous crimes.

I have also have established a parliamentary select committee that is currently looking into the experience of students with disabilities and/or additional learning support needs in our education system. The need for such a committee is clear from my dealings with many families who are struggling to have their children's right to an education met.

My consistent lobbying of the South Australian Certificate of Education (or SACE) Board has finally led to an improvement to the wording on future SACE certificates. This was necessary to remove the words “this student has completed a modified curriculum due to intellectual disability” from SACE certificates.

This change is significant for two reasons. The first being the right of students with disabilities to be recognised as equals among their peers. After all, students can contribute to their SACE in a variety of ways, not all of which are strictly academic in the traditional sense, for example by completing a trade. So why is taking a different path due to disability the only difference that needs to be pointed out in the wording of the certificate?

The second reason the old SACE certificates were problematic is because of the potential implications for future opportunity. Many recent school leavers bring their SACE certificate along to job interviews. Therefore, this wording on the certificate essentially forced a student to disclose their disability status to potential employers. And although we all know it is illegal to discriminate on the grounds of disability, unfortunately conscious and unconscious bias by employers is well documented.

...the right of students with disabilities to be recognised as equals among their peers

I am pleased to say that there is now also a Governor's Commendation for Excellence in Modified SACE award. These small yet significant changes allow increased equality for students with disabilities who are working at the best of their ability to be rewarded on the same basis as other students.



In working towards these changes, I am following up on the issues parents bring to me about their child's experience within the education system. In matters such as these, we celebrate the small victories, and learn to work at the speed of bureaucracy.



So in some ways, the human rights of people with disability as equals alongside our non-disabled peers in the community are slowly being recognised.

But, I have to say, we still have such a long way to go.



People still ring up talkback radio and ask:

'Why should I have to pay for someone else's kid's wheelchair?'

... forgetting that tomorrow they themselves or their own child could so easily become members of the 'disability club' and be reliant on others for their showers and personal care for the rest of their life. That's the reality of it, and of course it makes me angry that such attitudes still exist.

A study by the organisation Children with Disability Australia suggests that as many as one-in-four school-aged children are being denied enrolment at the school of their choice, or are unable to attend school full time due to a lack of resources.

Parents and families are still in crisis trying to support their children, who may for instance, display a range of behaviours or whose complex support needs are not being adequately funded.

Here in South Australia, I can certainly say that 'yes' we are seeing benefits from the NDIS [National Disability Insurance Scheme], but we are also seeing 'turf wars' over funding during the roll out. And I see children as the losers here in an adult bureaucratic game over which they have no control.

Because we now understand the enormous social and economic value of early investment in children, it is really nothing short of criminal that children are being left in limbo between systems. We are seeing this for instance in the practicality of provision of speech pathology services, during the roll out of the NDIS. It is coming down to a case of there being insufficient physical space in schools for therapists to come and deliver these services. It is an issue we need to untangle so that the full benefits of the NDIS can be realised.

I want to see a community that will **more than 'cope'** with differences. I want our system to offer the type of positive and re-assuring attitudinal support that values and respects individual children and their parents. I particularly don't want parents to feel that they can't get the understanding they need when they are involved in accessing services such as education.

As part of the Australian Government Department of Education and Training's 'Students First' program, one of the key areas of focus is engaging parents in education. Well, when I look at the issues parents bring to my attention, it seems that schools are not actually ready to engage parents in education if they are not able to offer students with disabilities full-time enrolment at school.

So, it is very easy to think that battles have been fought and won when it comes to the rights of people with disabilities. But the reality is that we really have a long way to go. To further illustrate this, I share the following example.



Photo Norwood.

In a recent visit to an Adelaide school, I was frankly shocked when, in front of students, a senior teacher explained to me that all the students there were “non-verbal” and “incontinent”. Those were her words. This statement, the timing, place and utterance of it was wrong in so many ways.

For one thing, I cannot accept that anyone working with students with disabilities would think such a breach of personal privacy, is okay. But in this case I can only assume that this teacher somehow deemed her disclosure acceptable because of the student’s disability. It was also unnecessary, and irrelevant for the conversation we were having which was supposed to be about the student’s education. The lack of respect indicates to me that these students are not in a genuinely supportive environment in their school, and that is deeply concerning.

It is vital that children have champions, within their close circle—their family, within their broader circle—their early learning centres and schools and, importantly within the policy circle of government. We need the champions

at the highest level to understand the importance of education, but we also need that on-the-ground respect for all students in their schools.

Years ago we talked about ‘early intervention’ whereas now we more correctly describe this work as ‘early investment’ and research is reinforcing the value of working with very young children.

‘Intervention’, to my mind, is a highly negative word which suggests that a child’s disability is something to be fixed, whereas ‘investment’ challenges that thinking.

Investment also reminds us that with the right support **every** child—whether or not they have a disability—has innate worth and potential. After all, no child can thrive without some level of support, but we wouldn’t refer to the provision of shelter, food, or clothing as ‘intervention’.

I’ve got some statistics to present now, and I am demonstrating my skills as a rule-breaker here, because I have heard it said that one must never, ever put statistics into speeches. But here I go, I’m breaking the rules—and I think you’ll see why.

These statistics come from the Center on the Developing Child at Harvard University, and they are:

- ▶ seven hundred
- ▶ eighteen
- ▶ ninety to one hundred
- ▶ three to one, and
- ▶ four to nine.

(700, 18, 90–100, 3:1 and 4–9)

Did I hear someone up the back say bingo? Perhaps those numbers may immediately mean something to you, but if not don't worry—I will expand.

700 is the number of new neural connections **per second** that are created in the first few years of life. Such connections are especially formed through 'serve and return' interactions with adults, and it is these connections that build the foundation upon which all future learning, behaviour and development depend.

18 months is the age at which disparities in vocabulary begin to appear. These disparities depend on whether children have been exposed to a language rich environment. By age three, children who have been in a language-rich environment can be expected to have a vocabulary **two to three times larger** than their peers.

90–100 per cent is the chance of developmental delays when children experience six to seven compounding risk factors. Risk factors such as poverty, caregiver mental health issues, and abuse.

3:1 are the odds of adult heart disease after seven to eight adverse childhood experiences. We see this increased risk because these early childhood experiences actually get into the body, with a lifelong effect on physical as well as cognitive and emotional development. There are also links to an increased risk of diabetes, hypertension, stroke and obesity.

\$4–9 is a figure that refers to the return for every dollar invested in early childhood programs. Economists have shown that high quality early childhood programs bring impressive returns on investment to the public purse. Not only do the children earn higher incomes as adults (and of course that means they pay higher taxes too), there is a saving in reduced education, welfare and crime costs. This is real win-win stuff.

Recent long-term follow-up studies in the United States have indicated figures as high as a **\$17 saving for every dollar invested**. And of course it is not only about the money, it is the improved quality of life resulting from early investment that counts.

It seems so obvious, but worth stating, that serious matters such as child abuse and child trauma are not problems that stay in childhood. The impact is felt throughout the lives of those affected.



The delivery of effective parent education programs, in particular, offers the means to increase the number of people in a child's life who are champions who are maximising quality early interactions. Attending parenting courses should be encouraged and supported with all the resources necessary to develop the home and early childhood centre partnership to support children.

I've heard it said that every child needs someone who is absolutely crazy about them, and as it happens that will not always be one of their parents.

When it comes to curriculum matters, clearly I am speaking to a room full of experts! But in looking toward finding ways of including students with disabilities alongside their non-disabled peers at any age, there needs to be flexibility and creativity applied to make it work.

The place to start is with each individual school teacher, education leader, policy maker and curriculum developer—and the launching point is to ask each of you to look within yourselves to see the way you have constructed students with disabilities.

I invite you to reflect on that and to examine whether you are beginning with an individual, or if you are beginning with a deficit model.

And I invite you to examine whether your first inclination is to see a problem to be fixed, or a person to respect and to work alongside?

I think it is that basic. If we agree that we need to find ways to ensure that education is accessible for, and inclusive of, students with disabilities, then it starts with individuals being aware of the capacity and ability of students with disabilities.

And I think it needs to be acknowledged that some of the experts in this matter are people with disabilities who need to have their voices heard about what works for them.

There is an adage that has been used throughout the history of disability activism: '**nothing about us without us**'. Including and valuing the lived experience of people with disabilities would make such a difference. So in working out how best to adapt and deliver an inclusive curriculum I have come up with some questions you may like to consider:

- ▶ Who is in the room or accessing the virtual classroom?
- ▶ What do these individuals require?
- ▶ To deliver the content to them, what do I need?
- ▶ Who are the experts I can call on?

And it also occurs to me that it may be important to consider the 'processing speed', to use a computer term, of the individual.

Simply knowing that someone has a disability will never give you enough information to know what their **ability** is, what they are capable of achieving is a product of both their own ability and the expectations—be they high or low—others place on them.

It will take longer for many students with disabilities to master various tasks and content, but I strongly urge provision of age-appropriate material to support them to do so. Again, this comes back to the respect for the individual student. In teaching basic maths or English, for example, it wouldn't be appropriate for a nine or 10 year old to be using resources designed for a four or five year old.

...it may be important to consider the
'processing speed' ... of an individual



Photo 1971markus.

It takes **as long as it takes**, for students with intellectual disabilities to reach a level of competency. I heard someone say recently that you wouldn't give up on a child who had not learned to tie their shoelaces by the age of five, for instance. Yet all too often, students with disabilities are not supported and encouraged and actively engaged in learning although they have the ability to develop their skills and knowledge.

It seems rather obvious, but educators need to be aware of the range of individual differences of students and become more responsive to that range of backgrounds and abilities.

With new innovations in technology some of the barriers to access education will be overcome, eye-gaze assistive technology is now readily available for instance. And when it comes to voice recognition software, I can tell you as a consumer of it, that it has moved past the really annoying development stage to now be of real assistance. And of course this technology will only get better as time goes on.

There are many catchcries these days around diversity, and when the concept of diversity is unpacked, disability is one of the component parts that tumbles out.

A Deloitte study for the Victorian Equal Opportunity and Human Rights Commission in 2012 suggested that a combined focus on both diversity and inclusion in the workplace can result in better business performance. The report found that disability plus inclusion equalled:

- ▶ an 83 per cent improvement in the ability to innovate
- ▶ a 31 per cent increase in responsiveness to changing customer needs, and
- ▶ a 42 per cent increase in team collaboration.

The results are certainly very clear and impressive that when organisations take action to include their staff and embrace diversity they improve innovation and performance.

But, you know that valuing diversity in the community needs to be much more than a 'box ticking' exercise. Because until we can move beyond a tokenistic engagement with people from diverse backgrounds, we risk falling into the trap of only using them as examples to fulfil our own need to tick those boxes.

I heard a quote recently, that when you have met one person with Aspergers... you have met one person with Aspergers. Well it made me smile, because that's true of all of us, we are individuals.

Now, I think it can be said that politically I don't have much in common with George W. Bush, but he used a phrase to describe institutional discrimination and bias that seems as apt today as when he spoke it, back in 2000. He described it as the "soft bigotry of low expectations"—the soft bigotry of low expectations. And that is out there, right now, as I speak in 2015 in Australia and it is forming a barrier around people with disability every day and in all aspects of their lives.

In education, of all sectors, we still need to guard against this culture of low expectation. It is our educators who need to be the ones to guide students and families to the solid ground of achievement matched to ability.

Every day, I am contacted by people in crisis—often due in part to the disproportionate chunk of their lives people with disabilities spend battling bureaucracy just to gain fair access to the world.

It may surprise some of you that, as a politician, my primary goal is to make myself redundant. And this goal will be reached when having a disability in South Australia no longer constitutes a full-time job.

In every sense, I exist in my current position as a member of parliament to ensure that we get a paradigm shift within our society which results in a **deep understanding** of what it does, and does not, mean to live with a disability. It is about breaking down those attitudinal barriers.

So, today I have taken the opportunity to talk about my own advocacy, the ongoing social justice work of Dignity for Disability in parliament, and the need to shift thinking around this thing called disability that tumbles out of the diversity box.

In closing, it seems that even with the best will in the world, many people—and I have to say, this includes people within the education sector—do not respect the rights of people with disabilities.

The **personal IS political**. I will leave you with **my** three keys to getting it right.

They are: 'fairness, innovation and respect'.

- ▶ **Fairness** because everyone deserves a fair go.
- ▶ **Innovation** because one important way forward is to work together to discover the synergy of creative solutions.
- ▶ **Respect** because it doesn't matter whether or not you can help someone, showing them respect means we can all hold our heads high.

We are all in this together, and as leaders in our community, I hope we can take every opportunity to set ourselves the highest standards. ■

Fairness, innovation and respect

Australian Curriculum: Technologies with a focus on critical and creative thinking



A paper by Julie King from the Australian Curriculum, Assessment and Reporting Authority (ACARA)

The Australian Curriculum: Technologies focuses on the key ideas of creating preferred futures; project management and the types of thinking used in technologies learning. These key ideas, including the critical and creative thinking skills of systems thinking, design thinking and computational thinking are evident in the content descriptions and achievement standards for Design and Technologies and Digital Technologies. The development of portfolios of student work samples for Technologies is designed to assist teachers in their assessment of student learning.



This paper focuses on the thinking skills underpinning the Australian Curriculum: Technologies, how they were developed and what this means for teachers.

In particular it will illustrate how assessment can provide opportunities for students to demonstrate critical and creative thinking skills in Technologies, how this is evidenced in student work and how students demonstrate this at different levels of achievement.

Background

The Australian Curriculum sets consistent high standards for what all young Australians should learn as they progress through schooling. It prepares Australia's next generation for the future and lays the building blocks for generations to come. It facilitates national collaboration to develop and share high quality resources and teaching practices.

Across Foundation to Year 12, curriculum for 43 learning areas and subjects have been developed and published on the Australian Curriculum website. All states and territories have commenced implementation of the Australian Curriculum.

The Australian Curriculum focuses on learning area content and achievement standards that describe what students will learn and teachers will teach. It also gives attention to seven general capabilities that are important for life and work in the 21st century and to three issues identified in the Melbourne Declaration on Educational Goals for Young Australians as needing more attention than they have received in curricula to date. The general capabilities and the cross-curriculum priorities are not added as additional subjects. They are dealt with, where relevant, through the learning area content on which the curriculum is built.

This paper is based on, and references, the Australian Curriculum: Technologies — www.australiancurriculum.edu.au/technologies/rationale.

Curriculum development

Development of the Australian Curriculum has been guided by the *Shape of the Australian Curriculum* paper, the *Curriculum Development Process v6.0* and the *Curriculum Design Paper v3.1*. The curriculum development process describes the core actions and accountabilities at the four stages of curriculum shaping, curriculum writing, implementation, and curriculum monitoring and evaluation. Throughout this rigorous national process ACARA consults with educators and experts throughout Australia.

The shaping phase for the Australian Curriculum: Technologies involved the development of a position paper, an initial advice paper that was presented to a national forum of 120 participants, and the development of a draft Shape paper by writers and advisors for public consultation for 12 weeks. Data from the consultation process informed recommendations for revision. The revised Shape paper was published and the writing of a broad outline began in August 2012, followed by the development of detailed curriculum. Consultation on the draft curriculum opened on 19 February 2013 and closed on 10 May. Once again a consultation report was prepared and the curriculum revised based on recommendations approved by the ACARA Board. The curriculum was published 'Available for use; awaiting final endorsement' in February 2014. The curriculum was endorsed by Education Council in September 2015 and published on version 8.0 of the Australian Curriculum website on 20 October 2015.

The shaping and writing phases are an iterative process, for example, key ideas for the Technologies curriculum (creating preferred futures and project management) were first identified in the shaping phase. The activity of shaping and writing progressively refined the key ideas to include types of thinking. This process reflects the activity theory described by Tulviste (1999, p. 75) in (Fleer, 2009, p. 673):

Either (a) various ways of thinking come into being independently; culture just decides which ways of thinking are used at all and in which particular situations, or (b) culture, including activity, is responsible for the coming into being of various ways of human thinking functionality related to activities.

Australian Curriculum: Technologies

The key ideas in the Australian Curriculum: Technologies are: creating preferred futures; project management and types of thinking—systems thinking; design thinking and computational thinking (critical and creative thinking in Technologies).

The Australian Curriculum: Technologies has been developed:

- ▶ from Foundation to Year 8 in two subjects: Design and Technologies and Digital Technologies
- ▶ from Years 9 to 10 in two optional subjects: Design and Technologies and Digital Technologies.

Design and Technologies comprises two related strands:

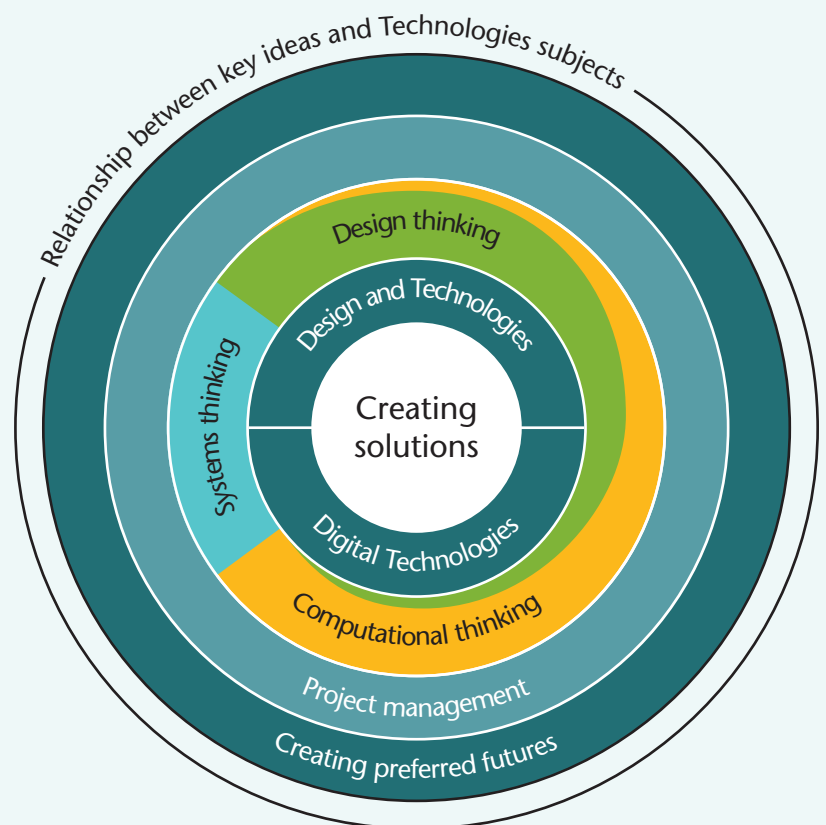
- ▶ Design and Technologies knowledge and understanding—the use, development and impact of technologies and design ideas across a range of technologies contexts: engineering principles and systems; food and fibre production; food specialisations; materials and technologies specialisations.

- ▶ Design and Technologies processes and production skills—the skills needed to design and produce designed solutions.

Digital Technologies comprises two related strands:

- ▶ Digital Technologies knowledge and understanding—the information system components of data, and digital systems (hardware, software and networks).
- ▶ Digital Technologies processes and production skills—using digital systems to create ideas and information, and to define, design and implement digital solutions, and evaluate these solutions and existing information systems against specified criteria.

FIGURE 1. Structure of the Australian Curriculum: Technologies



General capabilities

In the Australian Curriculum, the general capabilities encompass the knowledge, skills, behaviours and dispositions that, together with content in each learning area and the cross-curriculum priorities, will assist students to live and work successfully in the 21st century. In the Technologies curriculum, general capabilities are identified wherever they are developed or applied in content descriptions. They are also identified where they offer opportunities to add depth and richness to student learning through content elaborations.

Content descriptions at each band describe the knowledge, understanding and skills that teachers are expected to teach and students are expected to learn. Content elaborations are provided for each content description in Foundation to Year 10 to illustrate content. They are intended to help teachers in developing a shared understanding of the content descriptions. They are not intended to be comprehensive content points that all students need to be taught nor do they encompass every aspect of a content description.

One of the seven general capabilities is critical and creative thinking, and this is strongly evident in Technologies.

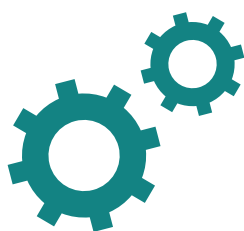
Responding to the challenges of the 21st century—with its complex environmental, social and economic pressures—requires young people to be creative, innovative, enterprising and adaptable, with the motivation, confidence and skills to use critical and creative thinking purposefully. (ACARA, 2014)

Critical and creative thinking in the Australian Curriculum

Across the Australian Curriculum, students develop capability in critical and creative thinking as they learn to generate and evaluate knowledge, clarify concepts and ideas, seek possibilities, consider alternatives and solve problems. Critical and creative thinking are integral to activities that require students to think broadly and deeply using skills, behaviours and dispositions such as reason, logic, resourcefulness, imagination and innovation in all learning areas at school and in their lives beyond school.

In Technologies, students develop capability in critical and creative thinking as they imagine, generate, develop and critically evaluate ideas. They develop reasoning and the capacity for abstraction through challenging problems that do not have straightforward solutions. Students analyse problems, refine concepts and reflect on the decision-making process by engaging in systems, design and computational thinking. They identify, explore and clarify technologies information and use that knowledge in a range of situations.

Students think critically and creatively about possible, probable and preferred futures. They consider how data, information, systems, materials, tools and equipment (past and present) impact on our lives, and how these elements might be better designed and managed. Experimenting, drawing, modelling, designing and working with digital tools, equipment and software helps students to build their visual and spatial thinking and to create solutions, products, services and environments.



Types of thinking

In preparing for the writing phase of the Australian Curriculum: Technologies, ACARA initiated a preliminary writing task to explore the conceptual underpinnings of the dominant types of critical and creative thinking in Technologies: systems thinking, design thinking and computational thinking. Experienced primary and secondary teachers participated in a workshop on the Structure of Observed Learning Outcomes (SOLO) taxonomy developed by Biggs and Collis (1982) to help consider the notion of increasing complexity in student understanding of these particular types of thinking. 'Progression does not mean that in order to make progress one simply does something extra and different. Often, it is doing the same thing to a higher level of quality. Improvement may amount to doing the same thing but in progressively richer ways' (Jones, 2009, p. 410).

The conceptual underpinnings of each type of thinking were presented in six levels. These documents were reviewed by the Technologies Advisory Group and used by curriculum writers as reference material when developing the detailed curriculum. This preliminary work contributed to a deeper understanding of 'the vertical structure of a learning domain' (Masters, 2013, p. 35).

Systems thinking

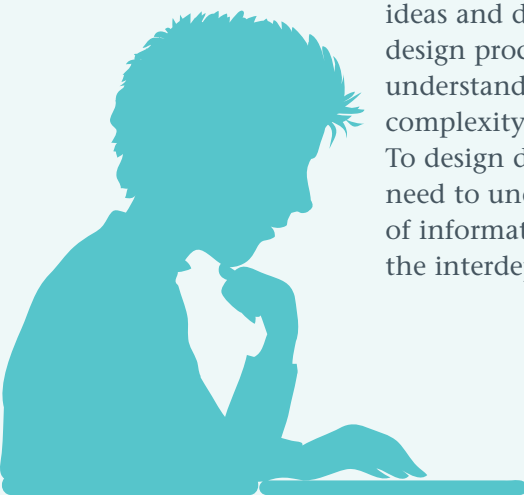
Systems thinking is a holistic approach to the identification and solving of problems. It focuses on the components of a system, and their interactions and interrelationships. When generating ideas and decisions made throughout design processes, students need to understand systems and work with complexity, uncertainty and risk. To design digital solutions students need to understand the complexity of information and digital systems and the interdependence of components.

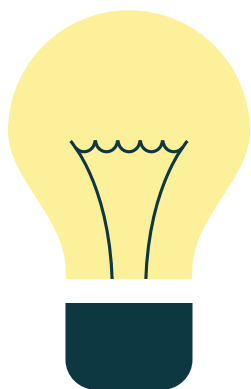
The systems thinking progression was developed with reference to the overarching ideas of the Australian Curriculum: Science which included systems; the benchmarks identified in the *Atlas of Science Literacy* (2001) and the organising ideas of the cross-curriculum priority: sustainability.

The Science curriculum emphasises an inquiry approach and has been written to encourage integration of the three strands. It utilises six overarching ideas to provide a conceptual frame for learning across Foundation to Year 10. One of these overarching ideas is systems. Systems thinking supports students to learn science as connected concepts, rather than as a collection of facts.

Considering objects, processes, and events as systems is a useful and pervasive tool in science, mathematics, and technology ... Students' understanding of the complexity of systems, emergent properties, troubleshooting and using systems analysis depends on their being able to grasp the importance of relationships among parts of a system. (AAAS, 2001, p. 132)

The Australian Curriculum cross-curriculum priority: sustainability, focuses on the ongoing capacity of Earth to maintain all life. For each cross-curriculum priority, a set of organising ideas reflects the essential knowledge, understanding and skills for the priority. There are many opportunities in the Technologies curriculum to address a number of these organising ideas, including 'sustainable patterns of living rely on the interdependence of healthy social, economic and ecological systems' (ACARA, 2014).





Key elements of the conceptual underpinnings continua for systems thinking included forming a system overview; identifying and modelling interdependencies; assessing system change over time; identifying leverage; and assessing probability, risk and benefit.

Design thinking

Design thinking involves the use of strategies for understanding design needs and opportunities, visualising and generating creative and innovative ideas, planning, and analysing and evaluating those ideas that best meet the criteria for success.

Design thinking underpins learning in Design and Technologies. Design processes require students to identify and investigate a need or opportunity; generate, plan and realise designed solutions; and evaluate products and processes. Consideration of economic, environmental and social impacts that result from designed solutions are core to design thinking, design processes and Design and Technologies.

When developing solutions in Digital Technologies, students explore, analyse and develop ideas based on data, inputs and human interactions. When students design a solution to a problem they consider how users will be presented with data, the degree of interaction with that data and the various types of computational processing.

Key elements of the conceptual underpinnings continua for design thinking included exploring and defining the task; generating and developing ideas; producing solutions; and evaluating.

Computational thinking

Computational thinking involves solving problems, designing systems, and understanding human behaviour, by drawing on the concepts fundamental to computer science. Computational thinking includes a range of mental tools that reflect the breadth of the field of computer science. (Wing, 2006, p. 33)

Computational thinking is a problem-solving method that is applied to create solutions that can be implemented using digital technologies. It involves integrating strategies, such as organising data logically, breaking down problems into parts, interpreting patterns and models and designing and implementing algorithms.

Computational thinking is used when specifying and implementing algorithmic solutions to problems in Digital Technologies. For a computer to be able to process data through a series of logical and ordered steps, students must be able to take an abstract idea and break it down into defined, simple tasks that produce an outcome. This may include analysing trends in data, responding to user input under certain preconditions or predicting the outcome of a simulation.

This type of thinking is used in Design and Technologies during different phases of a design process when computation is needed to quantify data and solve problems. Examples include when calculating costs, testing materials and components, comparing performance, or modelling trends.



Key elements of the conceptual underpinnings continua for computational thinking included formulating problems; logically organising and analysing data; automating and evaluating.

Relationship between types of thinking and the Australian Curriculum

Examples of how the Technologies curriculum (Years 3 and 4, and Years 7 and 8) and Levels 3 and 5 of the critical and creative thinking continuum reflect systems thinking, design thinking and computational thinking are shown in Table 1.

Achievement standards and work samples

Across Foundation to Year 10, achievement standards in the Australian Curriculum indicate the quality of learning that students should typically demonstrate by a particular point in their schooling. An achievement standard describes the quality of learning (the depth of conceptual understanding and the sophistication of skills) that would indicate the student is well-placed to commence the learning required at the next level of achievement.

The sequence of achievement standards in each Technologies subject describes progress in the subject, demonstrating a broad sequence of expected learning by the end of the band. This provides teachers with a framework for development in each Technologies subject.

Achievement standards will be accompanied by portfolios of annotated student work samples that illustrate the expected learning and help teachers to make judgments about whether students have achieved the standard.

Intensive engagement activity

During the consultation period for the draft Australian Curriculum: Technologies 134 teachers from 50 schools were involved in an intensive engagement activity which collected feedback from practising teachers about the manageability and usability of the draft curriculum for Technologies. As part of their involvement in this project, teachers developed assessment documents and collected work samples to illustrate how the draft curriculum could be implemented for their selected band of learning.

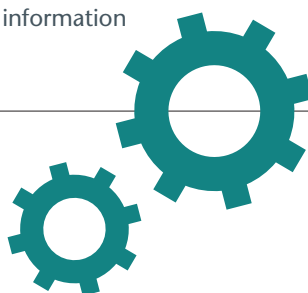
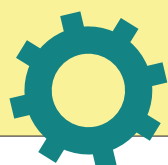
While the curriculum was revised as a result of consultation and the intensive engagement activity, a number of work samples will be used from this activity, along with others collected in 2014–15, to produce annotated student work sample portfolios. The portfolios will be provided to support implementation. Each portfolio will be an example of evidence of student learning in relation to the achievement standard. Portfolios will be published in 2016.

The set of portfolios will assist teachers to make on-balance judgements about the quality of their students' achievement. It contributes to 'building teachers' ability to assess against educational standards' (OECD, 2013, p. 12). Each portfolio comprises a collection of students' work drawn from a range of assessment tasks. There is no pre-determined number of student work samples in a portfolio, nor are they sequenced in any particular order. Each work sample in the portfolio may vary in terms of how much student time was involved in undertaking the task or the degree of support provided by the teacher.



TABLE 1. Relationship between types of thinking, the Technologies curriculum and the Critical and Creative Thinking continuum

Types of thinking	Australian Curriculum: Design and Technologies	Australian Curriculum: Critical and Creative Thinking continuum	Australian Curriculum: Digital Technologies
Systems thinking	<i>Years 3 and 4</i> Investigate how forces and the properties of materials affect the behaviour of a product or system	<i>Level 3: Organise and process information</i> Collect, compare and categorise facts and opinions found in a widening range of sources	<i>Years 3 and 4</i> Recognise different types of data and explore how the same data can be represented in different ways
	<i>Years 7 and 8</i> Analyse how motion, force and energy, are used to manipulate and control electromechanical systems when designing simple, engineered solutions	<i>Level 5: Organise and process information</i> Critically analyse information and evidence according to criteria such as validity and relevance	<i>Years 7 and 8</i> Investigate how digital systems represent text, image and audio data in binary
Design thinking	<i>Years 3 and 4</i> Generate, develop, and communicate design ideas and decisions using technical terms and graphical representation techniques	<i>Level 3: Seek solutions and put ideas into action</i> Experiment with a range of options when seeking solutions and putting ideas into action	<i>Years 3 and 4</i> Define simple problems, and describe and follow a sequence of steps and decisions (algorithms) needed to solve them
	<i>Years 7 and 8</i> Generate, develop, test, and communicate design ideas, plans and processes for various audiences using appropriate technical terms and technologies including graphical representation techniques	<i>Level 5: Seek solutions and put ideas into action</i> Predict possibilities, and identify and test consequences when seeking solutions and putting ideas into action	<i>Years 7 and 8</i> Design the user experience of a digital system, generating, evaluating and communicating alternative designs
Computational thinking	<i>Years 3 and 4</i> Critique needs or opportunities for designing and explore and test a variety of materials, components, tools and equipment and the techniques needed to produce designed solutions	<i>Level 3: Apply logic and reasoning</i> Identify and apply appropriate reasoning and thinking strategies for particular outcomes	<i>Years 3 and 4</i> Implement simple digital solutions as visual programs with algorithms involving branching (decisions) and user input
	<i>Years 7 and 8</i> Critique needs or opportunities for designing and investigate, analyse and select from a range of materials, components, tools, equipment and processes to develop design ideas	<i>Level 5: Apply logic and reasoning</i> Identify gaps in reasoning and missing elements in information	<i>Years 7 and 8</i> Analyse and visualise data using a range of software to create information; and use structured data to model objects or events



Note: This paper was first presented at the 2014 Biennial International Conference on Technology Education Research as 'Assessment of thinking in the Australian Curriculum: Technologies'.

Conclusion

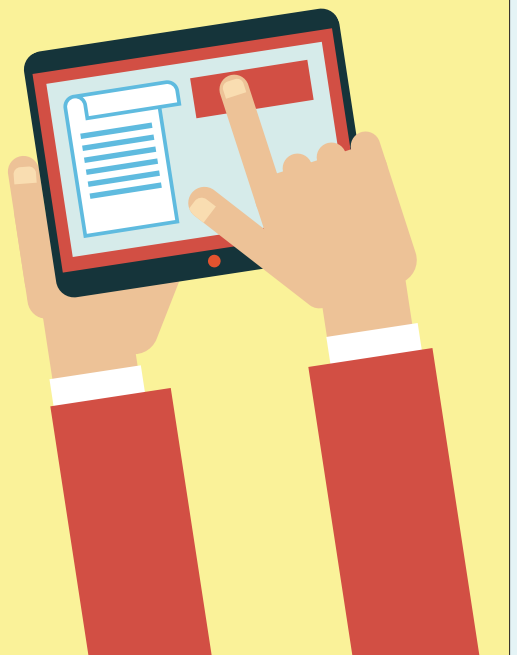
The key ideas of the Australian Curriculum: Technologies—creating preferred futures; project management and types of thinking used in technologies learning: systems thinking, design thinking and computational thinking contribute to developing general capabilities for lifelong learning. The development of a continuum of conceptual underpinnings for systems thinking, design thinking and computational thinking not only informed the development of the Technologies curriculum but contributed to a deeper understanding of developmental progression in Technologies learning.

Long-term learning within a domain often involves the development of more sophisticated understandings of subject matter, increasingly deep knowledge (for example, a growing appreciation of the contexts to which knowledge can be transferred and applied), and a developing ability to apply understandings and knowledge in real-world contexts. (Masters, 2013, p. 35)

Analysis of the student work samples and the annotations will illustrate what students know and can do at different bands; assist teachers to make on-balance judgements; and allow teachers to reflect and understand how knowledge, understanding and skills progressively develop in Technologies. ■

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Notice of ACSA 2016 Annual General Meeting

In accordance with the ACSA Constitution the Annual General Meeting of the Australian Curriculum Studies Association will be held in conjunction with the first Executive meeting of the year.

The next meeting will take place on Saturday 30 April 2016 at 10.00am at the Mary MacKillop Heritage Centre, 362 Albert Street, East Melbourne, Victoria 3002.

All ACSA members are invited to attend.

Agenda

- ▶ Welcome
- ▶ Apologies
- ▶ Minutes of previous Annual General Meeting
- ▶ President's Report
- ▶ Executive Director's Report
- ▶ Secretary-Treasurer's Report, including audited financial statements for the year ended 2015.

Christine Reid

ACSA Secretary-Treasurer

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